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Piecing The Puzzle Together With The Use Of Physical Therapy

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 HNRS 4990
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Piecing The Puzzle Together With The Use Of Physical Therapy

For my Honors Project I decided to create a set of exercise cards for children with autism. The front of each card had a picture symbolizing the exercise/activity, and on the back included directions, supplies and tips to complete the activity. The following is a selection of a few exercise cards from each of the four exercise sections, as well as the title card, table of contents cards, information cards, and source cards.

Piecing The Puzzle Together With The Use Of Physical Therapy

∴ Mikayla Pruitt

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There are 45 cards included within this ring set. Of these cards, 32 are exercise cards. The front of these cards will have illustrations of the target exercise. The back of each card describes the therapeutic benefits, exercise instructions, tips, and any required materials. The instructions are geared towards the child. The tips are for the adult helping the child.

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There are six sections within the set of different colors that include:

∴ Pink are information cards
 ∴ Blue are animal activities

4

Table of Contents

Pink - Information
 (7) What is autism?
 (8) What causes autism?
 (9) What is it like to have autism?
 (10 - 11) How does physical therapy help children with autism?

Blue - Animals
 (12) Tiger Tag

∴ Orange is sport activities
 ∴ Purple are competitive activities
 ∴ Green is arts and crafts activities
 ∴ Red are source cards

(13) Lion Run
 (14) Frog Jump
 (15) Bunny Hop
 (16) Leaping Kangaroo
 (17) Flying Owl
 (18) Hanging Like A Monkey
 (19) Wiggle Worm

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(20) Pig In The Mud
 (21) Squished Like A Bug
 (22) Jungle Dance

Orange - Sports

(23) Volleyball
 (24) Gymnastics
 (25) Tumbling
 (26) Diving
 (27) Basketball
 (28) Bowling
 (29) Skateboarder
 (30) Body Builder
 (31) Olympic Trials

Purple - Competition

(32) Clap Until You Can't Clap Anymore
 (33) Pound Them All Until They Fall!
 (34) Building Block Mania

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(35) Don't Be First; Be Last!
 (36) Mimic Me Like A Mime
 (37) Spin Until You Drop
 (38) Don't Get Caught Up In Hot Air
 (39) Balance On A Ball; Don't Fall!

Green - Arts and Crafts

(40) Sink Your Hands In The Sand
 (41) Flying With The Angles
 (42) Squeezing Out A Masterpiece
 (43) Fun With Foam

Red - Sources

(44 - 45)

7

What is autism?

∴ Common developmental disorder. (4)
 ∴ Referred to as the Autism Spectrum Disorder (ASD). (4)
 ∴ Autistic brains function differently to come up with different methods to complete common everyday tasks. (4)
 ∴ Symptoms can vary based on

8

What causes autism?

∴ Doctors do not understand the cause behind autism. (2)
 ∴ Genes from family members as well as environmental factors may play into why children have autism, but studies cannot fully support this belief. (2)

the intensity of the disorder. (4)

- ∴ Commonly diagnosed between the ages of 18 months and 4 years old. (2)
- ∴ Tests are used to determine if a child has autism by ruling out hearing, learning, and attention difficulties. (2)
- ∴ A specific score does not determine if the child is autistic or not; the test is compared to other children's tests of the same age, and if the score is below the other children's the child may be classified as being on the autism spectrum scale. (2)
- ∴ Therapy is provided to children with autism up to age 21 by an intervention program or the public school system as a requirement of the Federal Law. (9)

The number following the fact in parenthesis is the source the information came from

- ∴ The human brain is made of many genes and gene sequences, making it difficult for doctors to pinpoint the exact cause. (2)
- ∴ Every 1 child in 88 children will have autism according to the Center for Disease Control and Prevention. (11)
- ∴ More research is being done on the causes of autism, resulting in more information being known about it. (13)
- ∴ Although more is known about autism today than when it was first defined, there are many aspects still unknown. (13)

The number following the fact in parenthesis is the source the information came from

What is it like to have autism?

9

- ∴ Children with autism may have trouble:
 - Talking to others (4)
 - Sharing thoughts (4)
 - Interacting with others (4)
 - Controlling their behavior (4)
 - Playing with others (4)
 - Relating to others (4)
 - Holding eye contact (4)
 - Staying still (4)
 - Learning/processing new information (4)
 - Showing emotions (4)
 - Completing daily tasks (4)
- ∴ Children with autism will have

How does physical therapy help children with autism?

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- ∴ Provides regulated environment. (4)
- ∴ Create a regular routine. (4)
- ∴ Have a schedule that will decrease frustration and increase good behavior. (4)
- ∴ Positive incentives will help children with autism be interested to finish

less muscle tone than other children their age. (4)

∴ Children with autism will be more clumsy than usual. (4)

∴ Children with autism may become frustrated easily. (4)

The number following the fact in parenthesis is the source the information came from

the activity. (4)

∴ Develop motor skills. (9)

∴ Improve muscle tone. (9)

∴ Build coordination. (9)

∴ Improve posture. (9)

∴ Develop a fitness program. (9)

The number following the fact in parenthesis is the source the information came from

11

∴ Help children with autism become familiar and comfortable in their own bodies. (9)

∴ Boosts cognitive function. (1)

∴ Including pictures and examples of an activity helps the autistic child understand the concept before he or she completes it. (5)

∴ Positive reinforcement during the activity and following its' completion help children with autism feel accomplished. (5)

∴ Exercise activities help children with autism interact with other children with autism as well as individuals without autism. (5)

∴ Movement helps children with autism better communicate. (6)

∴ Helps maintain a healthy weight. (10)

∴ Helps children with autism learn to have fun. (12)

∴ Lets children with autism challenge other individuals. (12)

∴ Allow children with autism to complete challenges other individuals propose to them. (12)

∴ Allow creativity. (12)

∴ Works on expressing emotions. (12)

The number following the fact in parenthesis is the source the information came from

17

Flying Owl

∴ Therapeutic Benefits:

Physical Movement

Physical Strength

Trust

∴ Tips:

Make sure child holds onto the swing's ropes.

Make sure child does not jump off of swing while it is moving.

May work best if adult pushes child if that method is chosen.

∴ Directions:

Have child sit on swing and have adult stand behind child to push them as the child kicks his or her feet.

To make harder, have child kick his or her feet and lean backwards and forwards while pulling on the swing's ropes by him or herself.

∴ Required Materials:

Swing set

Activity based on activity found from Source 3

Hanging Like A Monkey

18

- ∴ Therapeutic Benefits:
 - Physical Movement
 - Hand - Eye Coordination
 - Physical Strength
- ∴ Tips:
 - Monitor child's movements.
- ∴ Directions:
 - Have the child's arms at shoulder distance apart.
 - Have child hold for 10 seconds.
 - To increase the difficulty, have the child take one hand off the bar and reach forward to grab the next bar while swinging like a monkey.
 - Continue until the child reaches the end.
- ∴ Required Materials:
 - Playground or other area with monkey bars

Activity based on activity found from Source 3

Wiggle Worm

19

- ∴ Therapeutic Benefits:
 - Physical Movement
 - Trust
 - Deep Pressure
- ∴ Tips:
 - Ensure child's head is outside the cushion or exercise mat at all times.
- ∴ Directions:
 - Have the child lay in a cushion or exercise mat with his or her head out.
 - Roll the child up into the cushion or exercise mat and have them wiggle like a worm to get out.
- ∴ Required Materials:
 - Cushion or exercise mat

Activity based on activity found from Source 3

Volleyball

23

- ∴ Therapeutic Benefits:
 - Hand - Eye Coordination
 - Physical Movement
 - Basic Education Skills
- ∴ Tips:
 - Monitor child's movements.
 - Ensure area is safe of materials child could trip on or run into.
 - The partner(s) in this activity could be adults or other children.
- ∴ Directions:
 - Blow up balloons of

Diving

26

- ∴ Therapeutic Benefits:
 - Deep Pressure
 - Physical Movement
 - Awareness
- ∴ Tips:
 - Monitor child's movements.
 - Ensure area around the jumping area is safe of items that may hurt the child if landed on.
- ∴ Directions:
 - Make a large pile of leaves or pillows.
 - Then have the child jump into them like a diver

different colors.
Have the child hit it
like a volleyball and
name
the color.

∴ Materials:

Balloons of various
colors

Activity based on activity found from Source 7

would dive into a pool.
Once the child is in the pile,
have the child wiggle to
get out of the pile.

∴ Required Materials:

Pillows or leaves

Activity based on activity found from Source 3

37

Spin Until You Drop

∴ Therapeutic Benefits:

Physical Movement
Physical Strength
Balance Skills

∴ Tips:

Monitor the child's
movements.
Ensure the area is safe
of materials the
child may run or bump
into.

∴ Directions:

Have the child hold his
or her arms out to
the side while he or she
spins around.
Have the child continue
to spin around in
circles,
until the child is unable
to spin anymore.

Activity based on activity found from Source 7

39

Balance On A Ball; Don't Fall!

∴ Therapeutic Benefits:

Physical Strength
Balance
Improved Posture

∴ Tips:

Monitor child as he or she
balances.
Ensure area is safe of items
that may hurt the
child if landed on.
May best be done on a softer
surface.

∴ Directions:

Have child sit on ball.
Once balance is gained, have
child roll back and
forth on the ball.
To make harder, have child
bounce up and down
on the ball while rolling
back and forth on it.

∴ Required Materials:

Physiotherapy Ball

Activity based on activity found from Source 3

Sink Your Hands In The Sand

∴ Therapeutic Benefits:

Creativity
Hand - Eye Coordination
Size Recognition

∴ Tips:

May best be done outside.

∴ Directions:

Give the child different sized buckets, pales, and sand wheels to play with.
Let them create castles or pour the sand into and out of the bucket.

∴ Required Materials:

Sand
Buckets/pales
Sand wheels

Activity based on activity found from Source 7

Flying With The Angels

∴ Therapeutic Benefits:

Physical Movement
Basic Education Skills
Stretching

∴ Tips:

May best be done in sand or snow, but any soft surface will work

∴ Directions:

Have the child lay down and move his or her arms and legs out and back in as far as they go.
Have the child count how many times he or she moves his or her arms and legs.

∴ Required Materials:

Sand or snow, if that is the preferred method.

Activity based on activity found from Source 7

- 1) Barnett, A. L. (2011). Benefits of exercise on cognitive performance in schoolchildren. *Developmental Medicine And Child Neurology*, 53(7), 580. doi:10.1111/j.14698749.2011.03973.x
- 2) Bernier, R. (2014, January 1). Autism. Retrieved November 27, 2014.
- 3) Calder, T. (2007). *Sensory Diet Cards*. Super Duper Publications.
- 4) Gavin, M. (2013, August 1). Autism Special Needs Factsheet. Retrieved November 27, 2014.
- 5) Ghani, K., & Kenward, L. (2011). From home to school with autism: How to make inclusion a success. London:

- 7) Griffin, S., & Sandler, D. (2010). *Motivate to communicate! 300 games and activities for child with autism*. London: Jessica Kingsl Pub.
- 8) Here Are 10 Great Autism Spectrum Quotes. (n.d.). Retrieved March 23, 2015, from <https://www.psychologytoday.com/blog/special-solutions/201012/here-are-10-great-autism-spectrum-quotes>
- 9) How Physical Therapy Helps Autistic Child. (n.d.). Retrieved November 27, 2014.
- 10) Janicas, K. (2014). Exercise as a treatment in intellectual and developmental disability. *Journal On Developmental Disabilities*, 20(1), 122-12
- 11) New, M. (2012, June 1). Autism. Retrieved November

Jessica Kingsley.

- 6) Gonzalez, A., & Brady, L. (2011).
Speech in action
interactive activities combining
speech language pathology
and adaptive physical education.
Philadelphia: Jessica Kingsley.

26, 2014.

- 12) Seach, D. (2007). Interactive play
children with
autism. London: Routledge.
- 13) Willis, C. (2006). Teaching young
children with autism
spectrum disorder. Beltsville, MD: Gryphon
House.